## REMARKS

Claims 1 to 3 and 6 as set forth in Appendix II of this paper are now pending in this case. Claims 4, 5 and 7 have been canceled, and Claim 6 has been amended, as indicated in Appendix I of this paper.

In addition to some editorial changes in the claim language, applicants have introduced the limitations of Claims 5 and 7 into Claim 1 in light of the Examiner's Final restriction requirement. Additionally, applicants have entered the clause *"whereby the thermoplastic molding composition is obtained which exhibits the improved elongation at break"* at the end of Claim 1 to further emphasize the particular effect which characterizes applicants' invention. Further, the dependency of Claim 6 has been revised and adapted. No new matter has been added.

Claims 1 to 7 stand rejected under 35 U.S.C. §112, ¶2, as being indefinite. Favorable reconsideration of the Examiner'S position and withdrawal of the respective rejection is respectfully solicited in light of applicants' amendment which replaces the expression *"where appropriate"* by -optionally-, and which cancels Claim 4.

Claims 1 to 7 further stand rejected under 35 U.S.C. §102(b) as being anticipated by the disclosure of ***Dalton et al.*** **(US 4,064,093)**. Favorable reconsideration of the Examiner's position is respectfully solicited for the following reasons:

To constitute anticipation, all material elements of the invention as claimed must be found in one prior art source[1)], and in determining whether the subject matter which is defined in a claim is anticipated by the prior art, the preamble as well as limitations which include language such as *"adapted to"*, *"whereby"* and *"thereby"* have to be given full consideration[2)]. While the disclosure of ***Dalton et al.*** provides for filtering a dispersion of a graft copolymer component of a molding composition, the prior art disclosure is silent as to any effect which the filtering has on the elongation at break of the resultant molding composition. The teaching of ***Dalton et al.*** therefore clearly fails to disclose all of the elements which are

1) ie. In re Marshall 577 F.2d 301, 198 USPQ 344 (CCPA 1978); In re Kalm 378 F.2d 959, 154 USPQ 10 (CCPA 1967)

2) *Pac-Tec, Inc v. Amerace Corp.*, 903 F.2d 796, 14 USPQ2d 1871 (CAFC 1990), *cert. denied*, 502 U.S. 808 (1991); note also *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976)

material with regard to applicants' process. Accordingly, the teaching of ***Dalton t al.*** cannot be considered as anticipating the subject matter of applicants' claim. Favorable action is respectfully solicited.

It is also respectfully noted in this context that the amount of *"hard spots"* which ***Dalton et al.*** seeks to reduce by filtering the dispersion of the graft copolymer component of a molding composition is, as evidenced by applicants' investigations, not predicative of the elongation at break properties of the resultant composition. The Examiner will note that Table 1 of the application (*page 23*) sets forth the *"speck count"*, ie. the count of hard spots of the molding composition. The data concerning the molding composition (1) are as follows:

| Composition | Filter size | Speck count | Elongation at Break | Min. Elongation at Break | Max. Elongation at Break |
|---|---|---|---|---|---|
| 1(a) | -- | -- | 10.1 | 7.6 | 14.4 |
| 1(b) | 250 | 0.23 | 32.3 | 24 | 53 |
| 1(c) | 40 | 0.3 | 32.4 | 14.8 | 60.1 |

Accordingly, the molding composition comprising the unfiltered graft copolymer component (*composition 1(a)*) was, in accordance with applicants' data, free of specks or hard spots. The elongation at break of composition 1(a) was nonetheless by far lower than the elongation at break of the compositions wherein the graft copolymer component had been filtered (*compositions 1(b) and 1(c)*). The results concerning the elongation at break of applicants' composition 2 wherein the graft copolymer component was filtered through a 250 µm screen (*composition 2(b)*) and through a 40 µm screen (*composition 2(c)*) also show that the composition which has a higher speck count, ie. composition 2(c) (*speck count 0.18%*) exhibits better elongation at break properties (*30.3%*) than the composition which has a lower speck count, ie. composition 2(b) (*speck count 0.12%; elongation at break: 21.8%*). The data corroborate that a person of ordinary skill cannot reasonably consider the amount of hard spots or specks to be indicative for elongation at break properties. Accordingly, the teaching of ***Dalton et al.*** fails to teach or suggest applicants' invention as defined in Claim 1 and further specified in Claims 2 to 4 and 6.

The Examiner has rejected Claim 4 under 35 U.S.C. §103(a) as being unpatentable in light of the disclosure of ***Dalton et al.*** (**US 4,064,093**) when taken in view of the teaching of ***Schmidt, Jr.*** (**US**

4,391,709). Withdrawal of the respective rejection is respectfully solicited in light of applicants' cancellation of Claim 4.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,
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Encl.: THE CHANGES IN THE CLAIMS (Appendix I)
THE AMENDED CLAIMS (Appendix II)

HBK/BAS

# APPENDIX I:

THE CHANGES IN THE CLAIMS (version with markings, showing the changes made):

1. (*amended*) A process for increasing the elongation at break of moldings made from thermoplastic molding compositions comprising, based on the total of the amounts of components A and B and[~~, where appropriate~~] optionally C and/or D, the entirety of which gives 100% by weight,

   a: from 1 to 99% by weight of a particulate emulsion polymer with a glass transition temperature below 0°C and with a median particle size of from 50 to 1000 nm, as component A,

   b: from 1 to 99% by weight of at least one amorphous or semicrystalline polymer, as component B,

   c: from 0 to 50% by weight of other thermoplastic polymers, as component C, and

   d: from 0 to 50% by weight of fibrous or particulate fillers or mixtures of these, as component D,

   wherein component A is a graft copolymer which has a median partcle size of from 50 to 1000 nm and is made from the following monomers, the amounts being based on A1,

   a1: from 1 to 99% by weight of a particulate graft base A1 with a glass transition temperature below 0°C, made from

      a11: from 80 to 100% by weight of butadiene, of at least one $C_1$-$C_8$-alkyl acrylate or of mixtures of these, as component A11,

      a12: from 0 to 20% by weight of at least one polyfunctional crosslinking monomer, as component A12, and

      a13: from 0 to 20% by weight of other copolymerizable monomers, as component A13,

      where the entirety of components A11 to A13 gives 100% by weight,

   a2: from 1 to 99% by weight of a graft A2 made from the following monomers, the amounts being based on A2,

      a21: from 40 to 100% by weight of at least one vinyl aromatic monomer, as component A21,

      a22: from 0 to 60% by weight of units of at least one ethylenically unsaturated monomer, as component A22, and

a23: from 0 to 30% by weight of other copolymerizable monomers, as component A23,

where the entirety of components a21, a22 and a23 gives 100% by weigh,

which comprises preparing component A by emulsion polymerization to obtain a dispersion of component A, filtering [~~that~~] the dispersion of component A [~~obtained from an emulsion polymerization,~~] to remove coagulated material, and then further processing the filtered dispersion, [~~to give~~] whereby the thermoplastic molding composition is obtained which exhibits the improved elongation at break.

**Claims 4 and 5 have been canceled.**

6. (*amended*) A process as claimed in claim [~~5~~] 1, wherein the molding composition comprises a butadiene rubber, acrylate rubber, EPDM rubber or silicone rubber, as particulate graft base A1.

**Claim 7 has been canceled.**

# APPENDIX II:

THE AMENDED CLAIMS (clean version of *all* claims):

1. (*amended*) A process for increasing the elongation at break of moldings made from thermoplastic molding compositions comprising, based on the total of the amounts of components A and B and optionally C and/or D, the entirety of which gives 100% by weight,

a: from 1 to 99% by weight of a particulate emulsion polymer with a glass transition temperature below 0°C and with a median particle size of from 50 to 1000 nm, as component A,

b: from 1 to 99% by weight of at least one amorphous or semicrystalline polymer, as component B,

c: from 0 to 50% by weight of other thermoplastic polymers, as component C, and

d: from 0 to 50% by weight of fibrous or particulate fillers or mixtures of these, as component D,

wherein component A is a graft copolymer which has a median partcle size of from 50 to 1000 nm and is made from the following monomers, the amounts being based on A1,

a1: from 1 to 99% by weight of a particulate graft base A1 with a glass transition temperature below 0°C, made from

a11: from 80 to 100% by weight of butadiene, of at least one $C_1$-$C_8$-alkyl acrylate or of mixtures of these, as component A11,

a12: from 0 to 20% by weight of at least one polyfunctional crosslinking monomer, as component A12, and

a13: from 0 to 20% by weight of other copolymerizable monomers, as component A13,

where the entirety of components A11 to A13 gives 100% by weight,

a2: from 1 to 99% by weight of a graft A2 made from the following monomers, the amounts being based on A2,

a21: from 40 to 100% by weight of at least one vinyl aromatic monomer, as component A21,

a22: from 0 to 60% by weight of units of at least one ethylenically unsaturated monomer, as component A22, and

a23: from 0 to 30% by weight of other copolymerizable monomers, as component A23,

where the entirety of components a21, a22 and a23 gives 100% by weigh,

which comprises preparing component A by emulsion polymerization to obtain a dispersion of component A, filtering the dispersion of component A to remove coagulated material, and then further processing the filtered dispersion, whereby the thermoplastic molding composition is obtained which exhibits the improved elongation at break.

2. A process as claimed in claim 1, wherein filters with filter sizes of from 5 to 400 mesh are used for the filtration.

3. A process as claimed in claim 1, wherein the filtration is not carried out using pressure.

6. (*amended*) A process as claimed in claim 1, wherein the molding composition comprises a butadiene rubber, acrylate rubber, EPDM rubber or silicone rubber, as particulate graft base A1.